RUHATH BENGALORE MAHANAGARA PALIKE DASARAHALLI ZONE PROJECT DIVISION

ame of Work: Construction of Culverts and Improvements road at Ravindra Nagara Slum Ward No.13, hettyhalli Sub Division

Est .Cost Rs.20.00 Lakhs

Sl No	Description of Items	No's	L	B	D	Qty	Unit	Rate	Amount
1	KSRRB 300-3. Earthwork excavation by manual means in ordinary soil invoiving in average horizontal throw up to 2m & an average lift upto 1.5m , excavated surface leveled & sides neatly dressed , the disposed earth to be levelled neatly after breaking of clods complete as per specification with all leads and lifts etc. complete as per the direction of Engineer-in-charge of work including Conveying the excavated earth silt, debris and over burden earth etc. to lead of 0 to 9 kmS distance by using private vehicle this includes the cost of loading and unloading charges etc, complete (Page No. 142/ Item No. 19.2/ PWD SR 2016-17.)								
	Rate=Basic Rate+6% of B.R(area weightage)=113+6.78=119.78/Cum &(Lead charges (2.5X1.28X9)+68.=96.8Cum)=216.58/Cum								
	For Drain	1	1	7.70	1.80	1.70	23.56		
		1	1	14.00	1.80	1.70	42.84		
		1	1	16.10	1.80	1.70	49.27		
	Culvert	1	1	10.00	1.80	1.70	30.60		
		1	1	7.00	1.80	1.70	21.42		
		1	1	2.90	3.30	1.70	16.27		
							183.96	Cum	216.58	39841.41
2	KSRB 2-2.2 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m.after breaking of clods complete as per specifications,specification. No. KBS 2.1(b)/2:3.5 (I.tm No.2.4, P.No.5, SR:2016-17)								
	Rate=Basic Rate+8% of B.R(area weightage)=283+22.64=305.64/Cum								
	For New chain link fencing	1	1	31.40	1.00	1.20	37.68		
							37.68	Cum	305.64	11516.52
3	Providing and Filling in foundation with **granite/trap broken metal 100 mm** and down size,with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift. complete as per specifications.								
	Rate=Basic Rate+6% of B.R(area weightage)=2114+126.84=2240.84/Cum								
	For Drain	1	1	7.70	1.80	0.30	4.16		
		1	1	14.00	1.80	0.30	7.56		
		1	1	16.10	1.80	0.30	8.69		
	Culvert	1	1	10.00	1.80	0.30	5.40		
		1	1	7.00	1.80	0.30	3.78		
		1	1	2.90	3.30	0.30	2.87		
							32.46	Cum	2240.84	72744.39
4	KSRB 4-1.2 : Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1,4.2 I.No-4.20 of KPWD S.R 2016-17(page.no.12,Item 4.2)								
	Rate=Basic Rate+6% of B.R(area weightage)=5046+302.76=5348.76/Cum								
	For Drain	1	1	7.70	1.80	0.15	2.08		
		1	1	14.00	1.80	0.15	3.78		
		1	1	16.10	1.80	0.15	4.35		
	Culvert	1	1	10.00	1.80	0.15	2.70		
		1	1	7.00	1.80	0.15	1.89		
		1	1	2.90	3.30	0.15	1.44		
	For New chain link fencing	1	1	31.40	1.00	0.15	4.71		
							20.94	Cum	5348.76	112011.06
5	KSRB 5.2-3 : Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13								
	Rate=Basic Rate+8% of B.R(area weightage)=4187+334.96=5668.92/Cum								
	For New chain link fencing	1	1	31.40	0.80	1.00	25.12		
							25.12	Cum	4521.96	113591.64

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6	KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 (Page No. 23, It No. 5.9 of KPWD S.R 2016-17)									
	Rate=Basic Rate+8% of B.R(area weightage)=5005+400.40=5405.40/Cum									
	For New chain link fencing	1	1	31.40	0.50	0.45	7.07			
	DEDUCTION									
	Pole basement	1	15	0.30	0.50	0.40	0.90			
							6.17	Cum	5405.40	33324.29
7	KSRB 4-1.5 : Providing and laying in position plain cement concrete of mix M20 with OPC cement @ 300kgs, with 20mm and down size graded granite metal coarse aggregates @0.64cum and fine aggregtes @ 0.43cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.(Page No. 12, It No. 4.5 of KPWD S.R 2016-17)									
	Rate=Basic Rate+8% of B.R(area weightage)=5542+443.36=5985.36/Cum									
	For coping	1	1	31.40	0.50	0.10	1.57			
	For piller	1	15	0.30	0.50	0.40	0.90			
							2.47	Cum	5985.36	14783.84
8	KSRB 4.2.2 : Providing laying palin / reinforced cement concrete for Box Drain walls of thicknes 10cm to 20 cm including cenmtering shuttering form work etc. complete as per approved drawiong and design MORTH Specification No. 1500,1700,2200 PCC M 20 Grade upto 0.75 m height using concrete mixture Specification No. KBS 4.1, 4.6 (Page 264/37.59)									
	Rate=Basic Rate+6% of B.R(area weightage)=10408+624.48=11032.48/Cum									
	Bottom Raft									
	For Drain	1	1	7.70	1.70	0.15	1.96			
		1	1	14.00	1.70	0.15	3.57			
		1	1	16.10	1.70	0.15	4.11			
	Culvert	1	1	10.00	1.70	0.20	3.40			
		1	1	7.00	1.70	0.20	2.38			
		1	1	2.90	3.10	0.20	1.80			
	Side walls	1								
	For Drain	1	2	7.70	0.15	1.10	2.54			
		1	2	14.00	0.15	1.10	4.62			
		1	2	16.10	0.15	1.10	5.31			
	Culvert	1	2	10.00	0.25	1.10	5.50			
		1	2	7.00	0.25	1.10	3.85			
	Deck Slab for Culvert	1	1	10.00	1.50	0.25	3.75			
		1	1	7.00	1.50	0.25	2.63			
		1	1	2.90	3.10	0.25	2.25			
	Deck Slab for drain	1	1	7.70	1.50	0.20	2.31			
		1	1	14.00	1.40	0.20	3.92			
		1	1	16.10	1.35	0.20	4.35			
	Ramp	1	1	7.00	0.60	0.15	0.63			
							58.87	Cum	11032.48	649487.61
9	KSRRB M2200-6.Supplying, fitting and placing TMT bar reinforcement in sub-structure complete as per drawing and Technical Specifications complete as per specificationsMORTH Specification No.1600 & 2200 - TMT Bars Fe 500.(Page No.185, Itm.no.28.8.2)									
	Rate=Basic Rate+6% of B.R(area weightage)=62719+3763.14=66482.14/Ton									
	For drains				65Kg/Cum		2124.85			
	For culvert				100Kg/Cum		2555.05			
							4679.90	Kgs		
							4.68	Ton	66482.14	311129.77
10	Supplying and fixing M.S Rectangular poles made out of 2 equal angles of 65X65X6 mm welded together and fixed in CC (1:2:4) WITH 2 NOS 16mm dia M.S. hold fast rods each of length 25 cms. Including cost of all Materials cutting, bending scaffolding wherever necessary, nicely finishing the welded joints with all lead lifts and as per the directions of the Engineer-in-Charge of the work and including providing 2 coats of approved quality paint over one coat of shop painting (excluding cost of earthwork and concrete) (Page No. 262, It No. 37.2 of KPWD S.R 2016-17)									
	Rate=Basic Rate+8% of B.R(area weightage)=819+65.52=884.52/Mtr									
		1	15.00	2.80			42.00			
							42.00	Mtr	884.52	37149.84

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	Providing and fixing M.S. Block pipe of 38mm dia, of heavy guage of 14 including removing the bends, cutting the pipe, and fixing pipe in between / the existing two verticle poles (M.S. rectangular poles) and spot welding the chain link with M.S. block pipe including cost of all materials wastage in cutting, and scaffolding wherever necessary with all lead and lift as directed by the Engineer-in-charge of work etc., complete including two coats of approved quality paint over one coat of shop paint. specification. No. KBS 37.4 PWD (Page No. 262, It No. 37.4 of KPWD S.R 2016-17)									
	Rate=Basic Rate+8% of B.R (area weightage)=324+25.92=349.92/Mtr									
		1	3	31.40			94.20			
							94.20	**Mtr**	**349.92**	**32962.46**
2	Providing chain link fencing 50mm size of 8 guage properly stretched between existing rectangular poles and fixed with suitable bolts & nuts, the free ends shall be welded to the pole and block pipe at top and bottom as required including cost of all materials, labour, lead and lifts and as per the directions of the Engineer-in-charge of work including two coats of approved quality paint over one coat of shop paint specification. No. KBS 37.3(Page No. 262, It No. 37.3 of KPWD S.R 2016-17)									
	Rate=Basic Rate+8% of B.R(area weightage)=659+52.72=711.12/Sqm									
		1	1	31.40		1.80	56.52			
							56.52	**Sqm**	**711.72**	**40226.41**
3	KSRB 15-18.1 : Applying red lead ready mix priming coat over new steel or other metal surface including preparing the surface after throughly cleaning oil, grease, dirt and other foreign matter, and scoured with wire brushes, fine steel wool, sand papers including cost of materials, labour, complete as per specifications. (Page No. 121, It No. 15.73 of KPWD S.R 2016-17)									
	Rate=Basic Rate+8% of B.R(area weightage)=29+2.32=31.32/Sqm									
	For Fencing	1	2	31.40		1.80	113.04			
	For Pole	1	15	0.40		2.80	16.80			
							129.84	**Sqm**	**31.32**	**4066.59**
14	KSRB 15-18.2 : Providing and applying enamel metal paint two coats (excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. (Page No. 121, It No. 15.74 of KPWD S.R 2016-17)									
	Rate=Basic Rate+8% of B.R(area weightage)=82+6.56=88.56/Sqm									
	For Fencing	1	2	30.00		1.80	108.00			
	For Pole	1	15	0.40		2.80	16.80			
							124.80	**Sqm**	**88.56**	**11052.29**
15	Removal of Unserviceable Soil with Disposal KSRRB M300-19. Removal of unserviceable soil including excavation, loading and disposal but excluding replacement by suitable soil which shall be paid separately as per clause 300.5 complete as per specifications. MORTH Specification No. 301									
	Rate=Basic Rate+6% of B.R(area weightage)=37+2.22=39.22/Cum &(Lead charges (2.5X1.28X10)=32Cum)=71.22/Cum									
	For Road									
		1	1	43.00	10.00	1.00	430.00			
							430.00	**Cum**	**71.22**	**30624.60**
16	Excavation in Soil using **Hydraulic Excavator** CK 90 and Tippers with Disposal KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location and complete as per specifications.(P.No. 143, I.No. 19.14)									
	Rate=Basic Rate+6% of B.R(area weightage)=46+2.76=48.76/Cum &(Lead charges (2.5X1.28X10)=32Cum)=80.76/Cum									
	CC Road									
		1	1	43.00	10.00	0.85	365.50			
							365.50	**Cum**	**80.76**	**29517.78**
17	KSRRB M300- Construction of Embankment with Material Gravel/ Murrum. KSRRB M300-53. Construction of embankment with approved material Gravel/Murrum with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement Table 300- 2 complete as per specifications.(Including cost of gravel / murrum, watering charges & compaction by vibratory roller to 95% of proctors density) MORTH Specification No. 305									
	Rate=Basic Rate+6% of B.R(area weightage)=302+18.12=320.12/Cum									
	For Road									
	Earth filling	1	1	43.00	10.00	1.85	795.50			
							795.50	**Cum**	**320.12**	**254655.46**
18	KSRB 2.3: Filling available excavated earth (excluding rock) in sides cum of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications. Specification. No. KBS 2.9 (I.tm No.2.10, P.No.6, SR:2016-17)									
	30% of Qty item No.2						11.30			
							11.30	**Cum**	**137.16**	**1550.46**
								Total construction cost		**1800236.41**
								KRIDL Charges 11%		**198026.00**

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Sub Total	1998262.41
Miscellaneous and unforseen Charges	1737.59
TOTAL	2000000.00

(Rupees Twenty Lakhs Only)

1 The Work spot has been inspected and the work found to be necessary
2 The Estimate is prepared as per the PWD SR 2016-17
3 The Provision made in estimate are adequate and essential
4. The area comes within the Bruhat Bangalore Mahanagara Palike Limits.

Asst Engineer
Project Division

Asst Executive Engineer
Project Division
BBMP

Executive Engineer
Project Division,Dasarahalli
BBMP

ನಂ: 33/17-18 ದಿನಾಂಕ: 01/12/2017
ರೂ: 20,00,000/- Twenty Lakh only
ಗಳ ಅಂದಾಜು ಪಟ್ಟಿಗೆ ಆಡಳಿತಾತ್ಮಕ ಮಂಜೂರಾತಿ ನೀಡಿದೆ.

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯೋಜನಾ ವಿಭಾಗ
ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ, ಬೆಂಗಳೂರು

ನಂ: 06/17-18 ದಿನಾಂಕ: 20/12/2017
ರೂ. 20,00,000/- Twenty Lakh only
ಗಳ ಅಂದಾಜು ಪಟ್ಟಿಗೆ ತಾಂತ್ರಿಕ ಮಂಜೂರಾತಿ ನೀಡಿದೆ

ತಾಂತ್ರಿಕ ಸಹಾಯಕರು
ಯೋಜನಾ ವಿಭಾಗ
ಬೆಂಗಳೂರು, ಬೃ.ಬೆ.ಮ.ಪಾ.

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